

Patent

Attorney Docket No. MTI-31607

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE Alexandria, VA 22313	ATTY. DOCKET NO.	Serial No.
	MTI-31607	10/050,507
	Applicant	Confirmation No.
	Teck Kheng Lee	7687
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Filing Date	Group Art Unit
	January 16, 2002	2813

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Examiner Initial		Document Number	Publication Date	Country	Int'l Class	Sub-Class	Translation (Yes/No)
CAT	A1	2000-183082	06-30-00	JP	H01L	21/566	Abstract
CAT	A2	2001077294	03-23-01	JP	H01L	25/065	Yes
CAT	A3	99/65282	12-16-99	WO	H05K	1/11	N/A

OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)

Examiner Initial		Non-Patent Document
CAT	B1	Copy of Australian Patent Office, Search Report, 30 May 2003, 4 pages.
CAT	B2	Al-sarawi, S. et al., "A Review of 3-D Packaging Technology," <i>Components, Packaging, and Manufacturing Technology, Part B: IEEE Transactions on Advanced Packaging</i> , Vol 21, Issue 1, Feb. 1998, pp. 2-14.
CAT	B3	Andros, F. et al., "TBGA Package Technology," <i>Components, Packaging, and Manufacturing Technology, Part B: IEEE Transactions on Advanced Packaging</i> , Vol. 17, Issue 4, Nov. 1994, pp. 564-568.
CAT	B4	Clot, Ph. et al., "Flip-Chip on Flex for 3D Packaging," 1999: 24 th IEEE/CPMT, 18-19 Oct. 1999, pp. 36-41.
CAT	B5	Ferrando, F. et al., "Industrial Approach of a Flip-Chip Method Using the Stud-Bumps With a Non-Conductive Paste," <i>Adhesive Joining and Coating Technology in Electronics Manufacturing</i> , 2000. Proceedings. 4 th International Conference on, 18-21, June 2000, pp. 205-211.
CAT	B6	Gallagher, C. et al., "A Fully Additive, Polymeric Process for the Fabrication and Assembly of Substrate and Component Level Packaging," <i>The First IEEE International Symposium on Polymeric Electronics Packaging</i> , 26-30, Oct. 1997, pp. 56-63.
CAT	B7	Geissinger, J. et al., "Tape Based CSP Package Supports Fine Pitch Wirebonding," <i>Electronics Manufacturing Technology Symposium</i> , 2002, IEMT 2002, 27 th Annual IEEE/SEMI International, 17-18 July 2002, pp. 41-452.
CAT	B8	Hatanaka, H., "Packaging Processes Using Flip Chip Bonder and Future Directions of Technology Development," <i>Electronics Packaging Technology Conference</i> , 2002. 4 th , 10-12, Dec. 2002, pp. 434-439.
CAT	B9	Haug, R. et al., "Low-Cost Direct Chip Attach: Comparison of SMD Compatible FC Soldering with Anisotropically Conductive Adhesive FC Bonding," <i>IEEE Transactions on Electronics Packaging Manufacturing</i> , Vol. 23, No. 1, Jan 2000, pp. 12-18.

Examiner Initials	Craig A. Shultz	Date Considered	12/2/04
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

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	January 16, 2002	2813

Examiner Initial		Non-Patent Document
CAT	B10	Isaak, H. et al., "Development of Flex Stackable Carriers" IEEE Electronic Components and Technology Conference, 2000 Proceedings 50th, 5/21/2000-5/24/2000, Las Vegas, NV, USA, pp. 378-84, IEEE Catalog No: 00CH37070.
CAT	B11	Kloeser, J. et al., "Fine Pitch Stencil Printing of Sn/Pb and Lead Free Solders for Flip Chip Technology," IEEE Transactions of CPMT - Part C, vol. 21, No. 1, 1998, pp. 41-49.
CAT	B12	Kheng et al., "Enhancement of Moisture Sensitivity Performance of a FBGA," Proceedings of International Symposium on Electronic Materials & Packaging, 2000, pp. 470-475.
CAT	B13	Li, L. et al., "Stencil Printing Process Development for Flip Chip Interconnect," IEEE Transactions Part C: Electronics Packaging Manufacturing, Vol. 23, Issue 3, July 2000, pp. 165-170.
CAT	B14	Lyons, A. et al., "A New Approach to Using Anisotropically Conductive Adhesives for Flip-Chip Assembly, Part A," IEEE Transactions on Components, Packaging, and Manufacturing Technology, Vol. 19, Issue 1, March 1996, pp. 5-11.
CAT	B15	Teo, Y. et al., "Enhancing Moisture Resistance of PBGA," Electronic Components and Technology Conference, 1998, 48th IEEE, 25-28 May 1998, pp. 930-935.
CAT	B16	Teutsch, T. et al., "Wafer Level CSP using Low Cost Electroless Redistribution Layer," Electronic Components and Technology Conference, 2000, 2000 Proceedings, 50th, 21-24 May 2000, pp. Pages: 107-113.
CAT	B17	"The 2003 International Technology Roadmap for Semiconductors: Assembly and Packaging", pp. 1-22
CAT	B18	Tsui, C. et al. "Pad Distribution Technology for Flip Chip Applications", 1998 Electronic Components and Technology Conference, pp. 1098-1102
CAT	B19	Xiao, G. et al., "Reliability Study and Failure Analysis of Fine Pitch Solder-Bumped Flip Chip on Low-Cost Flexible Substrate Without Using Stiffener," IEEE, 2002, Proceedings 52nd, 28-31 May 2002, pp. 112-118.

Examiner Initials	<i>Craig A. [Signature]</i>	Date Considered	12/2/04
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

MKE/968557.1

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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE Alexandria, VA 22313 INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO.	Serial No.
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U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Publication/ Issue Date	Patentee	U.S. Class	Sub-Class
CAT	A1	3,239,496	03/1966	Jursich		
CAT	A2	4,074,342	02/1978	Honn et al.		
CAT	A3	4,807,021	02/1989	Okumura		
CAT	A4	4,818,728	04/1989	Rai et al.		
CAT	A5	5,366,794	11/1994	Nakao		
CAT	A6	5,385,869	01/1995	Liu et al.		
CAT	A7	5,386,341	01/1995	Olson et al.		
CAT	A8	5,397,921	03/1995	Kamezos		
CAT	A9	5,404,044	04/1995	Booth et al.		
CAT	A10	5,409,863	04/1995	Kamezos		
CAT	A11	5,422,205	06/1995	Inoue et al.		
CAT	A12	5,438,477	08/1995	Pasch		
CAT	A13	5,448,511	09/1995	Paurus et al.		
CAT	A14	5,468,681	11/1995	Pasch		
CAT	A15	5,489,804	02/1996	Pasch		
CAT	A16	5,504,277	04/1996	Danner		
CAT	A17	5,598,033	01/1997	Behlen et al.		
CAT	A18	5,646,446	07/1997	Nicewarner, Jr. et al.		
CAT	A19	5,663,530	09/1997	Schueler et al.		
CAT	A20	5,668,405	09/1997	Yamashita		
CAT	A21	5,674,785	10/1997	Akram et al.		
CAT	A22	5,697,148	12/1997	Lance, Jr. et al.		
CAT	A23	5,719,449	02/1998	Strauss		
CAT	A24	5,721,151	02/1998	Pachmanabhan et al.		
CAT	A25	5,739,585	04/1998	Akram et al.		
CAT	A26	5,742,100	04/1998	Schroeder et al.		
CAT	A27	5,747,982	05/1998	Dromgoole et al.		
CAT	A28	5,752,182	05/1998	Nakatsuka et al.		
CAT	A29	5,758,413	06/1998	Chong et al.		
CAT	A30	5,798,285	08/1998	Bentlage et al.		
CAT	A31	5,798,567	08/1998	Kelly et al.		
CAT	A32	5,805,422	09/1998	Otake et al.		
CAT	A33	5,818,113	10/1998	Iseki et al.		
CAT	A34	5,821,624	10/1998	Pasch		

Examiner Initials	<i>Craig A. Thompson</i>	Date Considered	<i>10/2/04</i>
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

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Examiner Initial		Document No.	Publication/ Issue Date	Patentee	U.S. Class	Sub-Class
CAT	A35	5,834,338	11/1998	Takeda et al.		
CAT	A36	5,834,366	11/1998	Akram		
CAT	A37	5,834,848	11/1998	Iwasaki		
CAT	A38	5,835,355	11/1998	Dordi		
CAT	A39	5,843,808	12/1998	Kamezos		
CAT	A40	5,844,168	12/1998	Schueller et al.		
CAT	A41	5,866,953	02/1999	Akram et al.		
CAT	A42	5,886,408	03/1999	Ohki et al.		
CAT	A43	5,891,753	04/1999	Akram		
CAT	A44	5,898,224	04/1999	Akram		
CAT	A45	5,973,389	10/1999	Culnane et al.		
CAT	A46	5,973,404	10/1999	Akram et al.		
CAT	A47	5,977,640	11/1999	Bertin et al.		
CAT	A48	5,982,030	11/1999	MacIntyre		
CAT	A49	5,984,691	11/1999	Brodsky et al.		
CAT	A50	5,990,543	11/1999	Schueller et al.		
CAT	A51	5,991,161	11/1999	Samaras et al.		
CAT	A52	6,005,776	12/1999	Holman et al.		
CAT	A53	6,008,543	12/1999	Iwabuchi		
CAT	A54	6,011,694	01/2000	Hirakawa		
CAT	A55	6,013,948	01/2000	Akram et al.		
CAT	A56	6,020,629	02/2000	Faraworth et al.		
CAT	A57	6,022,761	02/2000	Gruppen-Shemansky et al.		
CAT	A58	6,024,584	02/2000	Lemke et al.		
CAT	A59	6,027,346	02/2000	Sinsheimer et al.		
CAT	A60	6,028,365	02/2000	Akram et al.		
CAT	A61	6,034,427	03/2000	Lan et al.		
CAT	A62	6,039,889	03/2000	Zhang et al.		
CAT	A63	6,040,630	03/2000	Panchou et al.		
CAT	A64	6,050,832	04/2000	Lee et al.		
CAT	A65	6,057,178	05/2000	Galuschki et al.		
CAT	A66	6,060,782	05/2000	Ohsono et al.		
CAT	A67	6,064,114	05/2000	Higgins, III		
CAT	A68	6,072,233	06/2000	Corisis et al.		
CAT	A69	6,074,897	06/2000	Degani et al.		
CAT	A70	6,075,710	06/2000	Lau		

Examiner Initials	<i>Cia Jhon</i>	Date Considered	12/2/04
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Examiner Initial		Document No.	Publication/ Issue Date	Patentee	U.S. Class	Sub-Class
CAI	A71	6,079,991	06/2000	Lemke et al.		
CAI	A72	6,093,035	07/2000	Lemke et al.		
CAI	A73	6,116,921	09/2000	Scholz et al.		
CAI	A74	6,124,631	09/2000	Cardot et al.		
CAI	A75	6,127,736	10/2000	Akram		
CAI	A76	6,133,637	10/2000	Hikita et al.		
CAI	A77	6,137,062	10/2000	Zimmerman		
CAI	A78	6,137,164	10/2000	Yew et al.		
CAI	A79	6,137,183	10/2000	Sako		
CAI	A80	6,157,541	12/2000	Hacke		
CAI	A81	6,165,885	12/2000	Gaynes et al.		
CAI	A82	6,172,422 B1	01/2001	Chigawa et al.		
CAI	A83	6,179,598 B1	01/2001	Brand		
CAI	A84	6,191,487 B1	02/2001	Rodenbeck et al.		
CAI	A85	6,208,521 B1	03/2001	Nakatsuka		
CAI	A86	6,212,768 B1	04/2001	Murakami		
CAI	A87	6,214,156 B1	04/2001	Takano et al.		
CAI	A88	6,218,202 B1	04/2001	Yew et al.		
CAI	A89	6,219,911 B1	04/2001	Estes et al.		
CAI	A90	6,221,763 B1	04/2001	Gillon et al.		
CAI	A91	6,225,688 B1	05/2001	Kim et al.		
CAI	A92	6,229,711 B1	05/2001	Yoneda		
CAI	A93	6,262,895 B1	07/2001	Forthun		
CAI	A94	6,291,775 B1	09/2001	Saitoh		
CAI	A95	6,294,455 B1	09/2001	Ahn		
CAI	A96	6,300,679 B1	10/2001	Mukerji et al.		
CAI	A97	6,310,288 B1	10/2001	Moden		
CAI	A98	6,323,060 B1	11/2001	Isaak		
CAI	A99	6,338,985	01/2002	Greenwood		
CAI	A100	6,429,516 B1	08/2002	Tsumoi		
CAI	A101	6,432,737 B1	08/2002	Webster		
CAI	A102	6,468,831	10/2002	Leong et al.		
CAI	A103	6,482,676	11/2002	Tsumoi et al.		
CAI	A104	6,489,676	12/2002	Taniguchi et al.		
CAI	A105	6,489,687 B1	12/2002	Hashimoto		
CAI	A106	6,492,737 B1	12/2002	Imasu et al.		

Examiner Initials <i>Craig A. Johnson</i>	Date Considered <i>12/2/04</i>
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Patent

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Examiner Initial		Document No.	Publication/ Issue Date	Patentee	U.S. Class	Sub-Class
CAJ	A107	6,515,324 B2	02/2003	Shibuya et al.		
CAJ	A108	6,518,677 B1	02/2003	Capote et al.		
CAJ	A109	6,586,830 B2	07/2003	Saito		
CAJ	A110	6,714,418	03/2004	Frankowsky et al.		
CAJ	A111	6,744,122	06/2004	Hashimoto		
CAJ	A112	6,756,251	06/2004	Lee		
CAJ	A113	2002/0045611 A1	04/2002	Abrams et al.		
CAJ	A114	2002/0079594 A1	06/2002	Sakurai		
CAJ	A115	2002/0167092 A1	11/2002	Fee et al.		
CAJ	A116	2002/0185661 A1	12/2002	Kawanobe et al.		

Examiner Initials	<i>CAJ</i>	Date Considered	11/2/04
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